

Prevalence, Predictors, and Prognosis of Intracranial Stenosis in Patients with TIA and Minor Stroke: Population-based Study Versus Randomized Trials (1766)

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Abstract

Objective: To study the age-specific prevalence, predictors and prognosis of symptomatic intracranial stenosis (ICS) in a population-based cohort of Caucasian patients with TIA/minor stroke on intensive medical management.

Background: Symptomatic ICS was perceived to convey a high risk of recurrent stroke but trials (SAMMPRIS and VISSIT) failed to show superiority of stenting over intensive medical management alone, due partly to a lower than expected risk of recurrent stroke possibly reflecting the young age of participants (mean age<60) and raising questions about generalizability to routine practice.

Design/Methods: All patients recruited to the population-based Oxford Vascular Study between 2011–2018 with TIA/minor ischemic stroke (NIHSS≤3), irrespective of age, were included. Imaging was preferentially by MR angiography (MRA), with CT angiography (CTA) or transcranial Doppler ultrasound in the case of contraindications. We determined the age-specific prevalence of ≥50% ICS and the associated stroke risk (adjusted for age and vascular risk factors) by follow-up to 2019 on intensive medical treatment without stenting.

Results: Of 1368 eligible imaged patients (mean/SD age= 69.2/13.9 years), 261 (19.1%; 17.7% TIA, 21.6% stroke) had a total of 424 symptomatic or asymptomatic ICS. The prevalence of any ICS increased with age (ptrend <0.0001). Of 106 patients with symptomatic ICS, 14 had recurrent ischemic strokes during mean follow-up of 3.2 years. The 2-year risks of ischemic stroke (9.3%, 95% CI 3.4–15.2) and of any stroke or death (21.8%, 12.6–31.0) were comparable to the medical treatment arms of the trials. Symptomatic ICS increased risk of ischemic stroke (adjusted HR= 1.47, 1.09–1.98) compared to no ICS, but asymptomatic ICS did not.

Conclusions: The prevalence of ICS increases steeply with age in predominantly Caucasian patients with TIA/minor stroke, but the risk of recurrent stroke on intensive medical treatment is consistent with randomized trials in younger cohorts, supporting their generalizability to routine practice.